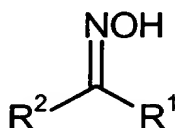


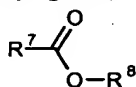
ABSTRACTCOMPOSITION AND PROCESS FOR THE EXTRACTION OF METALS

A solvent extraction composition is provided which comprises one or more orthohydroxyaryldoximes or orthohydroxyarylketoximes and one or more esters substituted with a hydroxyl group, and preferably a water immiscible organic solvent. The orthohydroxyaryldoximes, or orthohydroxyarylketoximes commonly have Formula (1),



Formula (1)

wherein R¹ is hydrogen or a hydrocarbyl group, and R² is an ortho-hydroxyaryl group; and the esters substituted with a hydroxyl group are of Formula (2),



Formula (2)

wherein one of R⁷ or R⁸ is a substituted hydrocarbyl group with at least one hydroxyl group and the other is an optionally substituted hydrocarbyl group. Preferred orthohydroxyaryldoximes are 5-(C₉ to C₁₄ alkyl)-2-hydroxybenzaldoximes and preferred orthohydroxyarylketoximes are 5-(C₉ to C₁₄ alkyl)-2-hydroxyacetophenone oximes. Preferred esters substituted with a hydroxy group are highly-branched alkyl esters comprising from 5 to 51 carbon atoms, wherein the hydroxy group resides on R⁸. Processes for the extraction of metal values from aqueous acidic and ammoniacal solutions are also provided.